**AMENDMENTS TO THE CLAIMS:**

Claims 1-12 (cancelled)

13. (currently amended) An optical shutter for the beam path in optical devices comprising:

a mounting unit which is provided with a diaphragm aperture;

a stepper motor which is mounted at the mounting unit; and

a shutter element which is ~~connected~~ fastened directly to the motor shaft of the stepper motor for opening and closing the diaphragm aperture;

said stepper motor being a two-phase stepper motor with a large full step angle;

said two-phase stepper motor being connected to a control unit and carrying out the required movement of the shutter element at a short distance from the motor shaft, said movement being that a 180° rotation of the electromagnetic field occurs in a stator of the stepper motor, and therefore a corresponding rotation of the motor shaft by n full steps, is carried out by the control unit.

14. (previously presented) The optical shutter according to claim 13, wherein a two-phase stepper motor with a claw-pole construction of the rotor and stator is used.

15. (currently amended) The optical shutter according to claim 13, wherein the movement of the shutter element is limited to a movement range of less than ~~n~~ two full steps by a stop pin in the two end positions, respectively.

16. (previously presented) The optical shutter according to claim 13, wherein an end-position sensor which is fastened to the mounting unit and determines the position of the shutter element is provided in addition.

17. (previously presented) A method for controlling an optical shutter according to claim 13, comprising the steps of:

carrying out movement of the shutter element fastened to the motor shaft in that the 180°

rotation of the electromagnetic field in the stator of the stepper motor, and, therefore, a corresponding rotation of the motor shaft by n full steps, is carried out by the control unit.

18. (previously presented) The method according to claim 17, wherein a reversal of the current direction in the two windings of the stepper motor is carried out by the control unit for moving the shutter element that is fastened to the motor shaft.

19. (previously presented) The method according to claim 17, wherein a retarded reversal of the current direction in the individual windings of the stepper motor is carried out by the control unit for directed movement of the shutter element.

20. (currently amended) The method according to claim 17, wherein a simultaneous reversal of the current direction in the individual windings of the stepper motor is carried out by the control unit for the directed movement of the shutter element when the mechanical rotation of the rotor is limited by stop pins to a movement range less than ~~n~~ two full steps.

21. (previously presented) The method according to claim 17, wherein the winding currents of the individual windings of the stepper motor are reduced after reaching the end position of the shutter element, wherein the end position is reached after n full steps or when one of the stop pins is contacted.

22. (previously presented) The method according to claim 17, wherein the winding currents of the individual windings of the stepper motor are switched off, respectively, after the end position of the shutter element is reached when the self-holding torque of the stepper motor is large enough to hold the shutter element in the respective end position.

23. (previously presented) The method according to claim 17, wherein the closing of the diaphragm aperture by the shutter element is ensured when the optical device is put into operation by evaluating the signal of the end-position sensor.

24. (previously presented) The method according to claim 17, wherein the windings of the stepper motor are acted upon by a predetermined current direction when the optical device is put into operation in order to ensure that the diaphragm opening is closed by the shutter element